

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method including
persistently maintaining in a persistent memory at least one event message until at
least one intended recipient of said event message confirms delivery of said event message; and
upon recovery from an error, replaying said event message;
whereby said event message is reliably delivered to said intended recipient.

2. (Original) A method as in claim 1, including
receiving said event message by said intended recipient; and
generating a confirmation of said event message in response to said event
message.

3. (Original) A method as in claim 1, wherein said event message is provided by
at least one event message producer.

4. (Original) A method as in claim 1, wherein said persistent maintenance
includes recording said event message in an event-indication queue, said event-indication queue
having resources pre-allocated before occurrence of an event associated with said event message.

5. (Original) A method as in claim 1, wherein said persistent maintenance includes recording said event message in an event-indication queue, wherein said event-indication queue is reliable even when the event message indicates that allocation of new resources is unstable.

6. (Original) A method as in claim 1, wherein said persistent maintenance includes recording said event message during a duration when delivery of said event message is not yet feasible.

7. (Original) A method as in claim 6, including
upon termination of said duration, replaying said event message;
whereby said event message is reliably delivered to said intended recipient.

8. (Original) A method as in claim 6, wherein said duration includes a boot time or an initialization time.

9. (Cancelled)

10. (Currently Amended) A method as in claim 1 [[9]], including
delivering said event message to said intended recipient;


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receiving a confirmation of said delivery; and
removing said event message from said persistent memory in response to said
confirmation.

11. (Currently Amended) A method including
persistently maintaining in a persistent memory at least one event message during
a duration when delivery of said event message is not yet feasible; and
upon termination of said duration, replaying said event message;
whereby said event message is reliably delivered to an intended recipient of said
event message.

12. (Original) A method as in claim 11, wherein said duration includes a boot
time or an initialization time.

13. (Original) A method as in claim 11, wherein said event message is provided
by at least one event message producer.

14. (Original) A method as in claim 11, including persistently maintaining at least
one event message until at least one intended recipient of said event message confirms delivery
of said event message.



15. (Original) A method as in claim 14, including
upon recovery from an error, replaying said event message;
whereby said event message is reliably delivered to said intended recipient.

16. (Original) A method as in claim 14, wherein said persistent maintenance includes recording said event message in an event-indication queue, said event-indication queue having resources pre-allocated before occurrence of an event associated with said event message.

17. (Original) A method as in claim 14, wherein said persistent maintenance includes recording said event message in an event-indication queue, wherein said event-indication queue is reliable even when the event message indicates that allocation of new resources is unstable.

18. (Cancelled)


19. (Currently Amended) A method as in claim 11 [[18]], including
delivering said event message to said intended recipient;
receiving a confirmation of said delivery; and
removing said event message from said persistent memory in response to said confirmation.

AJ 20. (Original) A method as in claim 11, including
receiving said event message by said intended recipient; and
generating a confirmation of said event message in response to said event
message.

21. (Currently Amended) A method including
maintaining at least one event message in a plurality of memory locations in a
persistent memory, each one of said plurality of memory locations being accessible by both a first
server device and a second server device; and
upon recovery from an error at said first server device, replaying said event
message from said second server device;
whereby said event message is reliably delivered to an intended recipient of said
event message.

22. (Original) A method as in claim 21, wherein said event message is provided
by at least one event message producer.

23. (Original) A method as in claim 21, wherein said maintenance includes
persistently maintaining said event message during a duration when delivery of said event mes-
sage is not yet feasible.



24. (Original) A method as in claim 23, including
upon termination of said duration, replaying said event message;
whereby said event message is reliably delivered to an intended recipient of said
event message.

25. (Original) A method as in claim 23, wherein said duration includes a boot
time or an initialization time.

26. (Original) A method as in claim 23, wherein said event message is provided
by at least one event message producer.

27. (Original) A method as in claim 21, wherein said maintenance includes
persistently maintaining said event message until at least one intended recipient of said event
message confirms delivery thereof.

28. (Original) A method as in claim 27, wherein said persistent maintenance in-
cludes recording said event message in an event-indication queue, said event-indication queue
having resources pre-allocated before occurrence of an event associated with said event message.

29. (Original) A method as in claim 27, wherein said persistent maintenance in-
cludes recording said event message in an event-indication queue, wherein said event-indication


queue is reliable even when the event message indicates that allocation of new resources is unstable.

30. (Cancelled)

31. (Currently Amended) A method as in claim 27 [[30]], including delivering said event message to said intended recipient; receiving a confirmation of said delivery; and removing said event message from said persistent memory in response to said confirmation.

32. (Currently Amended) A method as in claim 27 [[30]], including receiving said event message by said intended recipient; and generating a confirmation of said event message in response to said event message.

33. (Currently Amended) A method including delivering at least one event message to a multiplexing recipient; maintaining said event message in a persistent memory at said multiplexing recipient; and




reliably delivering said event message from said multiplexing recipient to at least one intended recipient of said event message.

34. (Original) A method as in claim 33, including
receiving said event message by said intended recipient; and
generating a confirmation of said event message in response to said event message.

35. (Original) A method as in claim 33, wherein said event message is provided by at least one event message producer.

36. (Original) A method as in claim 33, wherein reliable delivery of said event message from said multiplexing recipient includes
persistently maintaining said event message at said multiplexing recipient;
upon recovery from an error at said multiplexing recipient, replaying said event message from said multiplexing recipient to said intended recipient;
whereby said event message is reliably delivered to said intended recipient.

37. (Original) A method as in claim 36, wherein said persistent maintenance includes recording said event message in an event-indication queue, said event-indication queue having resources pre-allocated before occurrence of an event associated with said event message.



38. (Original) A method as in claim 36, wherein said persistent maintenance includes recording said event message in an event-indication queue, wherein said event indication queue is reliable even when the event message indicates that allocation of new resources is unstable.

39. (Cancelled)

40. (Currently Amended) A method as in claim 36 ~~[[39]]~~, including delivering said event message to said intended recipient;

receiving a confirmation of said delivery; and

removing said event message from said persistent memory in response to said confirmation.

41. (Original) A method as in claim 33, wherein reliable delivery of said event message from said multiplexing recipient includes

persistently maintaining said event message at said multiplexing recipient until at least one intended recipient of said event message confirms delivery of said event message;

sending a confirmation of delivery from said multiplexing recipient in response to a confirmation of delivery from said intended recipient.

42. (Original) A method as in claim 41, wherein said persistent maintenance includes recording said event message in an event-indication queue, said event-indication queue having resources pre-allocated before occurrence of an event associated with said event message.

43. (Original) A method as in claim 41, wherein said persistent maintenance includes recording said event message in an event-indication queue, wherein said event-indication queue is reliable even when the event message indicates that allocation of new resources is unstable.

44. (Cancelled)

45. (Currently Amended) A method as in claim 41 ~~[[44]]~~, including
delivering said event message to said intended recipient;
receiving a confirmation of said delivery; and
removing said event message from said persistent memory in response to said confirmation.

46. (Currently Amended) A memory including instructions, said instructions capable of being interpreted to indicate
persistently maintaining in a persistent memory at least one event message until at least one intended recipient of said event message confirms delivery of said event message; and

upon recovery from an error, replaying said event message;

whereby said event message is reliably delivered to said intended recipient.

47. (Original) A memory as in claim 46, wherein said instructions are also

capable of being interpreted to indicate recording said event message during a duration when delivery of said event message is not yet feasible.

48. (Currently Amended) A memory including instructions, said instructions

capable of being interpreted to indicate

maintaining at least one event message in a plurality of memory locations in a persistent memory, each one of said plurality of memory locations being accessible by both a first server device and a second server device; and

upon recovery from an error at said first server device, replaying said event message from said second server device;

whereby said event message is reliably delivered to an intended recipient of said event message.

49. (Currently Amended) A memory including instructions, said instructions

capable of being interpreted to indicate

delivering at least one event message to a multiplexing recipient;

maintaining said event message in a persistent memory at said multiplexing recipient; and

reliably delivering said event message from said multiplexing recipient to at least one intended recipient of said event message.

50. (Currently Amended) Apparatus including

means for persistently maintaining in a persistent memory at least one event message until at least one intended recipient of said event message confirms delivery of said event message; and

means for replaying said event message upon recovery from an error.

51. (Original) Apparatus as in claim 50, including

means for receiving said event message by said intended recipient; and

means for generating a confirmation of said event message in response to said event message.

52. (Original) Apparatus as in claim 50, wherein said means for persistently maintaining includes means for recording said event message in an event-indication queue, said event-indication queue having resources pre-allocated before occurrence of an event associated with said event message.

53. (Original) Apparatus as in claim 50, wherein said means for persistently maintaining includes means for recording said event message in an event-indication queue, wherein said event-indication queue is reliable even when the event message indicates that allocation of new resources is unstable.

54. (Original) Apparatus as in claim 50, wherein said means for persistently maintaining includes means for recording said event message during a duration when delivery of said event message is not yet feasible.

55. (Original) Apparatus as in claim 54, including upon termination of said duration, means for replaying said event message;

whereby said event message is reliably delivered to said intended recipient.

56. (Original) Apparatus as in claim 54, wherein said duration includes a boot time or an initialization time.

57. (Cancelled)

58. (Currently Amended) Apparatus as in claim 50 [[57]], including means for delivering said event message to said intended recipient; means for receiving a confirmation of said delivery; and

means for removing said event message from said persistent memory in response to said confirmation.

59. (Currently Amended) Apparatus including


means for persistently maintaining in a persistent memory at least one event message during a duration when delivery of said event message is not yet feasible; and upon termination of said duration, means for replaying said event message.

60. (Original) Apparatus as in claim 59, wherein said duration includes a boot time or an initialization time.

61. (Original) Apparatus as in claim 59, including means for persistently maintaining at least one event message until at least one intended recipient of said event message confirms delivery of said event message.

62. (Original) Apparatus as in claim 61, including, upon recovery from an error, means for replaying said event message.

63. (Original) Apparatus as in claim 61, wherein said means for persistently maintaining includes means for recording said event message in an event-indication queue, said



event-indication queue having resources pre-allocated before occurrence of an event associated with said event message.


64. (Original) Apparatus as in claim 61, wherein said means for persistently maintaining includes means for recording said event message in an event-indication queue, wherein said event-indication queue is reliable even when the event message indicates that allocation of new resources is unstable.

65. (Cancelled)

66. (Currently Amended) Apparatus as in claim 59 [[65]], including means for delivering said event message to said intended recipient; means for receiving a confirmation of said delivery; and means for removing said event message from said persistent memory in response to said confirmation.

67. (Currently Amended) Apparatus as in claim 59 [[65]], including means for receiving said event message by said intended recipient; and means for generating a confirmation of said event message in response to said event message.

68. (Currently Amended) Apparatus including

 means for maintaining at least one event message in a plurality of memory locations in a persistent memory, each one of said plurality of memory locations being accessible by both a first server device and a second server device; and

upon recovery from an error at said first server device, means for replaying said event message from said second server device.

69. (Currently Amended) Apparatus including

means for delivering at least one event message to a multiplexing recipient;

means for maintaining said event message in a persistent memory at said multiplexing recipient; and


means for reliably delivering said event message from said multiplexing recipient to at least one intended recipient of said event message.

70. (Original) Apparatus as in claim 69, including

means for receiving said event message by said intended recipient; and

means for generating a confirmation of said event message in response to said event message.

71. (Currently Amended) In a method including reliable delivery of event messages, a persistent memory including

 a persistent record of at least one event message stored until at least one intended recipient of said event message confirms delivery of said event message; and
upon recovery from an error, a replayable instance of said event message.

72. (Original) A memory as in claim 71, including a record of said event message during a duration when delivery of said event message is not yet feasible.

73. (Original) A memory as in claim 71, including
at least one event message in a plurality of memory locations, each one of said plurality of memory locations being accessible by both a first server device and a second server device; and
upon recovery from an error at said first server device, at least one instance of said event message replayable from said second server device.

74. (Currently Amended) In a method including reliable delivery of event messages, a persistent memory including
a persistent record of at least one event message at a multiplexing recipient; and
an instance of said event message deliverable from said multiplexing recipient to at least one intended recipient of said event message.

75. (Currently Amended) In apparatus having elements capable of performing a method, said method including reliable delivery of event messages, a persistent memory including

a persistent record of at least one event message until at least one intended recipient of said event message confirms delivery of said event message; and
upon recovery from an error, a replayable instance of said event message.

76. (Original) A memory as in claim 75, including a record of said event message during a duration when delivery of said event message is not yet feasible.

77. (Original) A memory as in claim 75, including
at least one event message in a plurality of memory locations, each one of said plurality of memory locations being accessible by both a first server device and a second server device; and

upon recovery from an error at said first server device, at least one instance of said event message replayable from said second server device.

78. (Original) A memory as in claim 75, including
a persistent record of at least one event message at a multiplexing recipient; and
an instance of said event message deliverable from said multiplexing recipient to at least one intended recipient of said event message.